

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A scanning display apparatus ~~(10)~~, characterized in that the apparatus ~~(10)~~ includes comprising:

(a) a display ~~(70)~~ operable:

(i) to receive one or more driver signals and generate corresponding visual information for presentation on the display ~~(70)~~; and

(ii) to sense radiation received at the display ~~(70)~~ and generate one or more sensing signals corresponding to a region proximate to the display ~~(70)~~; and

(b) computer hardware ~~(80)~~ coupled to the display ~~(70)~~ for generating the one or more driver signals for the display ~~(70)~~ and for receiving the one or more sensing signals from the display

~~(70)~~, the computer hardware ~~(80)~~ being operable to provide an interactive user interface ~~(UI)~~ at the display ~~(70)~~;

wherein the computer hardware is operable to de-energize parts of the display which are obscured by one or more objects placed on or in proximity of the display for reducing power dissipation within the display.

2. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 1, the apparatus being arranged to identify positions of the one or more objects ~~(320)~~ placed in proximity of the display ~~(70)~~ by way of ambient illumination to the apparatus ~~(10)~~ obscured by the one or more objects ~~(320)~~.

3. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 1, wherein the display ~~(70)~~ is operable to generate light radiation for illuminating the one or more objects ~~(320)~~ placed in proximity to or on the display ~~(70)~~, and also for receiving at least part of the light radiation reflected from the one or more objects ~~(320)~~ so as to enable the apparatus ~~(10)~~ to assimilate a

scanned image of the one or more objects—(320).

4. (Currently Amended) ~~An~~ The apparatus (10)—according to claim 1, wherein the computer hardware (80)—is operable to execute a first coarser scan (620)—to determine spatial location of the one or more objects (320)—on or in proximity of the display—(70), and then execute a second finer scan (660)—to assimilate finer details of the one or more objects—(320).

5. (Currently Amended) ~~An~~ The apparatus (10)—according to claim 4, wherein the computer hardware (80)—is operable to present a representation of the one or more objects (320)—in a region of the display (70)—in which the one or more objects (320)—were placed during scanning as confirmation of successfully completed scanning.

6. (Currently Amended) ~~An~~ The apparatus (10)—according to claim 1, the apparatus (10)—being operable to sense one or more objects (320)—when placed upon or positioned in proximity to the display (70)—and obscuring at least part of the display—(70), and

to adapt the user interface ~~(UI)~~ to use those parts of the display ~~(70)~~ which are unobscured.

Claim 7 (Canceled)

8. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 6, arranged to present the user interface ~~(UI)~~ in squeezed format when an unobscured active region of the display ~~(70)~~ is insufficiently large to include all of the user interface ~~(UI)~~.

9. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 8, wherein the user interface ~~(UI)~~ includes a scrolling feature for use in accessing squeezed parts of the user interface ~~(UI)~~ presented on the display ~~(70)~~.

10. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 6, wherein a minimum display size limit for the user interface ~~(UI)~~ is defined in the computer hardware ~~(80)~~, such that obscuring more of the display ~~(70)~~ than defined by the display size

limit causes the computer hardware (80) to present at least part of the user interface (UI) in a squeezed format.

11. (Currently Amended) ~~An apparatus (10) according to claim 1,~~ scanning display apparatus comprising:

(a) a display operable:

(i) to receive one or more driver signals and generate corresponding visual information for presentation on the display;  
and

(ii) to sense radiation received at the display and generate one or more sensing signals corresponding to a region proximate to the display; and

(b) computer hardware coupled to the display for generating the one or more driver signals for the display and for receiving the one or more sensing signals from the display, the computer hardware being operable to provide an interactive user interface at the display;

the apparatus (10) being arranged to present the user interface (UI) comprising a plurality of user interface features,

the computer hardware ~~(80)~~ being provided with a priority identifier for each of the features determining which of the features to omit from presentation in the user interface ~~(UI)~~ in a situation where at least part of the display ~~(70)~~ is obscured.

12. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 1, wherein the computer hardware ~~(80)~~ in conjunction with the display ~~(70)~~ is operable to identify the one or more objects ~~(320)~~ in proximity to or in contact with the display ~~(70)~~ and invoke one or more corresponding software applications for executing in the computer hardware ~~(80)~~ in response to placement of the one or more objects ~~(320)~~.

13. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 12, wherein the one or more software applications are operable to generate one or more animated icons on the display which appear in surrounding spatial proximity to the one or more objects ~~(320)~~ placed on the display ~~(320)~~, thereby providing a visual acknowledgement that the computer hardware ~~(80)~~ has

identified presence of the one or more objects ~~(320)~~.

14. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 1, wherein the display ~~(70)~~ comprises one or more pixel devices ~~(150)~~ capable of both:

- (a) generating or transmitting illumination; and
  - (b) sensing illuminating incident thereupon, the one or more pixel devices ~~(150)~~ being fabricated using one or more of:
    - (c) liquid crystal display devices ~~(LCD)~~ with associated thin-film-transistors ~~(TFT)~~ configured to function as a light sensor;
- and
- (d) polyLED technology.

15. (Currently Amended) ~~An~~ The apparatus ~~(10)~~ according to claim 1 adapted for use in one or more of the following applications:

- (a) a contact type scanner;
- (b) webtables;
- (c) interactive tables, for example e-tables;

- (d) automatic vending machines control panels;
- (e) security access panels;
- (f) interactive control panels in vehicles;
- (g) electronic design drawing boards;
- (h) interactive advertisement or information displays;
- (i) childrens' interactive toys and games;
- (j) teaching aids;
- (k) television monitors; and
- (l) computer monitors.

16. (Currently Amended) A method of operating a scanning display apparatus ~~(10)~~ including:

(a) a display ~~(70)~~, ~~characterized in that~~ wherein the method includes ~~steps~~ acts of:

(i) receiving one or more driver signals at the display ~~(70)~~ and generating corresponding visual information for presentation on the display ~~(70)~~; and

(ii) sensing radiation received at the display ~~(70)~~ and generating one or more corresponding sensing signals corresponding



to a region proximate to the display ~~(70)~~; and

(b) in computer hardware ~~(80)~~ coupled to the display ~~(70)~~, generating the one or more driver signals for the display ~~(70)~~ and receiving the one or more sensing signals from the display ~~(70)~~, and de-energize parts of the display which are obscured by one or more objects placed on or in proximity of the display for reducing power dissipation within the display, the computer hardware ~~(80)~~ being operable to provide an interactive user interface ~~(UI)~~ at the display ~~(70)~~.

17. (Currently Amended) A The method according to claim 16, further comprising a step an act of using pixel devices ~~(150)~~ of the display ~~(70)~~ to generate light radiation for illuminating the one or more objects ~~(320)~~ placed in proximity to or on the display ~~(70)~~, and also for receiving at least part of the light radiation reflected from the one or more objects ~~(320)~~ so as to enable the apparatus ~~(10)~~ to assimilate a scanned image of the one or more objects ~~(320)~~.